

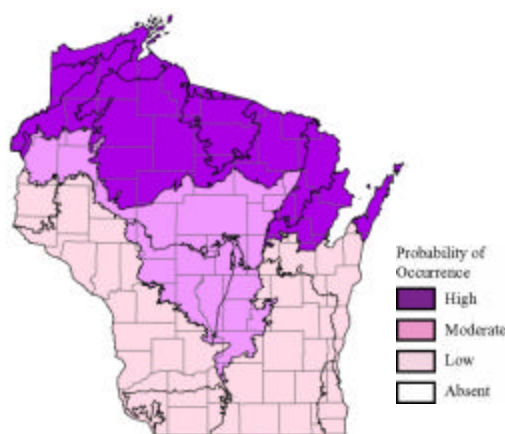
3.1.5.3 Individual Mammal Species of Greatest Conservation Need Summaries

Water Shrew (*Sorex palustris*)

Species Assessment Scores*

State rarity:	4
State threats:	3
State population trend:	3
Global abundance:	4
Global distribution:	3.5
Global threats:	3
Global population trend:	3
Mean Risk Score:	3.4
Area of importance:	2

* Please see the [Description of Vertebrate Species Summaries \(Section 3.1.1\)](#) for definitions of criteria and scores.



Ecological Landscape Associations

Please note that this is not a range map. Shading does not imply that the species is present throughout the Landscape, but represents the probability that the species occurs somewhere in the Landscape.

Landscape-community Combinations of Highest Ecological Priority

Ecological Landscape	Community
North Central Forest	Coldwater streams
North Central Forest	Coolwater streams
North Central Forest	Hardwood swamp
North Central Forest	Northern wet forest
North Central Forest	Northern wet-mesic forest
Northeast Sands	Coldwater streams
Northeast Sands	Coolwater streams
Northeast Sands	Northern wet-mesic forest
Northern Highland	Coolwater streams
Northern Highland	Northern wet forest
Northern Lake Michigan Coastal	Northern wet-mesic forest
Northwest Lowlands	Northern wet forest
Northwest Sands	Coldwater streams
Northwest Sands	Coolwater streams
Northwest Sands	Northern wet forest
Superior Coastal Plain	Boreal forest
Superior Coastal Plain	Coldwater streams
Superior Coastal Plain	Coolwater streams

Threats and Issues

- Loss and degradation of habitat, especially water quality, from road construction, development, improperly conducted logging or agriculture, drainage, and other activities is the primary management concern for water shrews.
- Invasive species are threatening aquatic habitat, and as a result water shrews are at risk for possible new diseases, parasites, or decline from loss of habitat.

- Direct contamination from chemicals and heavy metals threatens water shrews, as shrews feeding on invertebrates accumulate and concentrate pesticides and heavy metals in their tissues.
- Chemical pollution and other activities that degrade water quality in suitable stream habitats are a major threat to water shrews. Pollution may result from insecticide treatments targeting exotic species (e.g., gypsy moth), acid rain, and other factors.
- Sedimentation and stream temperature changes which reduce or eliminate the water shrew's primary food sources (aquatic larvae of caddisflies, stoneflies, mayflies, true flies, and leaches and snails) are a threat to this species.

Priority Conservation Actions

- Occupied habitat should be mapped and a low impact monitoring program should be maintained to inform conservation efforts directed at this species.
- There is a need to enforce existing regulations requiring buffer strips and habitat maintenance along water ways that contain water shrews.
- Protection and restoration of natural stream habitat is needed, particularly in areas with fast-flowing shallow waters that water shrews appear to prefer.
- Pesticide use that might impact aquatic/riparian invertebrate populations should be avoided whenever possible.
- Develop additional guidelines for activities that may potentially impact water shrew habitat such as road building, non-sustainable methods of timber harvest, agriculture, and surface mining. During timber harvest, water quality concerns can be addressed by applying voluntary Forestry Best Management Practices for water quality.
- Opportunities and training that would allow citizens to assist with monitoring efforts, including distribution and abundance information, would benefit this species.